

DIFFERENTIAL EQUATIONS
Volume 27, Numbers 1-12, 1991
 (A translation of *Differentsial'nye Uravneniya*)

Engl./Russ.

Volume 27, Number 1, January, 1991

PARTIAL DIFFERENTIAL EQUATIONS

Boundary Properties of Cauchy-Type Integrals. The L_p -Case - A. V. Aleksandrov and A. P. Soldatov	1	3
Analytic Continuation of Solutions of Boundary-Value Problems for a Stationary Wave Equation - V. F. Apel'tsin	5	8
A Parabolic Boundary-Value Problem in a Simple Domain - E. A. Baderko	12	17
Spinor Systems - V. S. Vinogradov	17	22
Stabilization of a Solution of a Cauchy Problem for an Iterated Heat-Conduction Equation - V. N. Denisov	22	29
Lavrent'ev Effect and the Averaging of Nonlinear Variational Problems - V. V. Zhikov	32	42
A Nonlocal Boundary-Value Problem for a Stationary Stokes Problem in a Multiply Connected Domain - N. A. Zhura	40	51
Solution of a Problem in the Theory of a Frankl's Problem for Equations of Mixed Type - N. Yu. Kapustin and K. B. Sabitov	47	60
A Nonlocal Boundary-Value Problem for an Equation of Mixed Type - M. G. Karatopraklieva	54	68
Basis Property of the Root Vectors of Loaded Second-Order Differential Operators on an Interval - I. S. Lomov	64	80
Solution of Singular Equations by means of Biorthogonal Series - E. I. Moiseev	75	94
Local Solvability of Differential Equations in Spaces of Many-Valued Analytic Functions - V. E. Nazaikinskii, B. Yu. Sternin, and V. E. Shatalov	82	103
Determination of the Evolution of a Parameter in an Abstract Parabolic Equation - A. I. Prilepko and D. G. Orlovskii	91	114
A Scattering Problem for a Schrödinger Operator with a Singular Potential in the Two-Dimensional Case. II - V. S. Serov	96	120
Truncation-Function Method in the Theory of Nonlocal Problems - A. L. Skubachevskii	103	128
Operator-Bundle Method for Conjugation Boundary-Value Problems for a System of Elliptic Equations - Yu. G. Smirnov	112	140
Nonlinear Hyperbolic Systems with Two Independent Variables - D. V. Tunitskii	118	147

Volume 27, Number 2, February, 1991

ORDINARY DIFFERENTIAL EQUATIONS

Conditions for Complete Controllability and Observability of Two-Parameter Discrete Systems - I. V. Gaishun and Huoang Wang K'uang	125	187
Exponential Representation of Solutions of a Linear Matrix Differential Equation - S. A. Mazanik	130	193
Periodic Solutions of Singularly Perturbed Linear Systems with Singularities - V. I. Rozhkov	136	200
Properties of the Ideal Generated by Lyapunov Values - V. G. Romanovskii	141	207
Game Problems in the Control of Trajectory Bundles - N. Yu. Satimov	151	219
Topological Properties of an Integral Funnel of a Differential Inclusion with a Lipschitz Right Side - G. V. Smirnov	157	228

Conditions for the Existence of a Critical Value of a Parameter in a System of Ordinary Differential Equations - M. T. Terekhin	166	238
---	-----	-----

PARTIAL DIFFERENTIAL EQUATIONS

Solvability of a Cauchy Problem, with an Initial Function Increasing Arbitrarily at Infinity, for Some Quasilinear Singular Parabolic Equations - A. L. Gladkov	170	243
Applications of Pan'i Parabolic Potentials to Boundary-Value Problems of Mathematical Physics. II - L. I. Kamynin	176	250
Uniqueness of a Solution of a Linear Problem for Stationary Oscillations of a Liquid - N. G. Kuznetsov	187	264
Maximum-Modulus Principles for Some Classes of Second-Order Elliptic and Hyperbolic Equations - K. B. Sabitov	194	272
A Mixed-Contact Boundary-Value Problem for Elliptic Systems - A. P. Soldatov	200	279
Integral Representations of Some Equations in Formal Derivatives - N. T. Stel'mashuk and V. A. Shilinetz	207	288
A Cauchy Problem for Wave-Bundle Equations in a Curved Dielectric Cylinder - R. P. Tarasov	212	294
A Gradient Method for Finding Optimum Controls of Distributed Systems - V. K. Tolstykh ..	219	303
A High-Order Strictly Hyperbolic Equation in Spaces $L^p(\mathbb{R}^n)$, $1 < p < +\infty$ - M. I. Efendiev ...	227	312

INTEGRAL AND INTEGRODIFFERENTIAL EQUATIONS

Nonlinear Convolution Integral Equations with Almost Increasing Kernels in Cones - S. N. Askhabov and M. A. Betilgiriev	234	321
Boundary Integral Equations for a Simple-Layer Potential in the Cylindrical-Variables Plane - Yu. I. Mokin	242	331

Volume 27, Number 3, March, 1991

ORDINARY DIFFERENTIAL EQUATIONS

Auxiliary Exponents of Exponentially Separated Systems - T. Sh. Abakirov	253	371
A Question Concerning Linear Differential Inequalities. I - N. V. Azbelev and A. I. Domoshnitskii	257	376
Basis Properties of Eigenfunctions of a Regular Boundary-Value Problem for a Vector Functional-Differential Equation - A. M. Gomilko and G. V. Radzievskii	264	384
Solutions of a System of Three Differential Equations with Quadratic Nonlinearities - V. I. Gromak and V. V. Tsegel'nik	273	396
Solvability of Equations Analogous to Bellman Equations in a Control Problem for Diffusion Processes with Integral Conditions and Incomplete Feedback - N. G. Dokuchaev	279	403
Asymptotic Invariance of Equation Systems with Time-Lag - S. V. Emel'yanov, S. K. Korovin, I. G. Mamedov, and A. P. Nosov	289	415
Characteristic Indices of Linear Systems with Grobman Perturbations - N. A. Izobov	299	428
An Item from the Mathematical Theory of the Competition of Biological Forms in a Variable Medium - V. G. Il'ichev	307	437
Bifurcation of a Singular Cone of a Homogeneous Three-Dimensional System - V. P. Nozdracheva	315	447
Oscillation of Solutions of Third-Order Linear Ordinary Differential Equations. I - N. N. Khvedelidze and T. A. Chanturiya	319	452
Controllability of Linear Systems with Distributed Parameters - B. Sh. Shklyar	326	461

PARTIAL DIFFERENTIAL EQUATIONS

A Cauchy Problem for High-Order Differential Equations with Deteriorating Operators - E. A. Barkova and P. P. Zabreiko	336	472
--	-----	-----

Integral Representation of Solutions of a Class of Degenerate Parabolic Kolmogorov Equations - S. D. Ivasishen and L. N. Androsova	341	479
Applications of Parabolic Potentials to Boundary-Value Problems of Mathematical Physics. I - L. I. Kamynin	348	487
A Generalized Semilinear Hyperbolic Stefan Problem on the Real Line - V. M. Kirilich and A. D. Myshkis	356	497
Analytic Solutions of a Cauchy Problem - Yu. F. Korobeinik and A. B. Mikhailov	361	503
Boundedness of the Attraction Domain of a Stationary Solution of a Nonlinear Diffusion Equation System for the Dynamics of a Controlled Reactor - R. S. Makin	367	511
Existence of Semiregular Solutions of a First Boundary-Value Problem for a Parabolic Equation with a Nonmonotonic Discontinuous Nonlinearity - V. N. Pavlenko	374	520
Compactness of the Attainability Set of a Controlled Partial Differential Inclusion - A. V. Plotnikov	379	526

Volume 27, Number 4, April, 1991

ORDINARY DIFFERENTIAL EQUATIONS

Stability of Linear Systems with After-Effect. II - N. V. Azbelev, L. M. Berezhanskii, P. M. Simonov, and A. V. Chistyakov	383	555
Justification of Frommer's Method for Systems of the Class C^∞ - A. F. Andreev	388	562
Coefficient Conditions for the Numbers and Multiplicity of Singular Points of a Quadratic Differential System - N. I. Vulpe	397	572
Equiconvergence, with Trigonometric Series, of Expansions in Root Functions of a One-Dimensional Schrödinger Operator with a Complex Potential in the Class L_1 - V. A. Il'in	401	577
Stability of Solutions to Inverse Problems for Nonlinear Distributed Systems. II - V. I. Maksimov	416	597
Completeness of Systems with After-Action, with Restrictions on Initial Conditions - S. A. Minyuk	422	603
Oscillation of Solutions of Third-Order Linear Ordinary Differential Equations. II - N. N. Khvedelidze and T. A. Chanturiya	428	611

PARTIAL DIFFERENTIAL EQUATIONS

Existence of Smooth Solutions of Boundary-Value Problems for a Class of Equations of Mixed Type - G. D. Dachev	435	619
Applications of Parabolic Potentials to Boundary-Value Problems of Mathematical Physics. II - L. I. Kamynin	441	627
Stabilization of Generalized Solutions of Degenerate Problems in Two-Phase Filtration - A. V. Domanskii	453	641
A Boundary-Value Problem for a Nonlinear Tricomi Equation in Space - N. I. Popivanov and M. Schneider	459	648
Doubly Periodic Generalized Analytic Functions - D. S. Safarov	465	656

INTEGRAL AND INTEGRODIFFERENTIAL EQUATIONS

Dual Integral Equations Related to Eigenfunctions of Steklov's Problem for a Wedge - B. A. Vasil'ev	474	666
New Results Concerning the Solvability of Hammerstein Operational and Integral Equations - P. P. Zabreiko and Nguen Huong Thai	479	672
Quadrature Formulas for a Singular Integral with Translation, and Applications - I. A. Shakirov	487	682

Volume 27, Number 5, May, 1991

ORDINARY DIFFERENTIAL EQUATIONS

Necessary First-Order Conditions for Anormal Variational Calculus Problems - E. R. Avakov	495	739
Asymptotics of Solutions of Differential Equations with Functional Perturbations - E. V. Voskresenskii	501	745
Relaxation Oscillations in an Equation System Describing the Operation of a Solid Laser with a Nonlinear Time-Lag Element - E. V. Grigor'eva and S. A. Kashchenko	506	752
Development of a Lyapunov Stability Theorem - B. S. Kalitin	512	758
Estimation of the Hausdorff Dimension of Attractors of Dynamical Systems - G. A. Leonov	520	767
Some Differential-Topological Problems in Control Theory - A. A. Liverovskii and N. N. Petrov	524	771
Linear Generalized Lyapunov Functions and Limit Cycles - Yu. V. Malyshev and V. P. Zakharov	529	777
Bounded Solutions of a Matrix Riccati Differential Equation - A. V. Savkin	533	781
Optimization of Generalized (Impulse) Controls in a Nonlinear Time-Optimal Problem - A. V. Sarychev	539	788
Asymptotics of Spheroidal Functions of the Second Kind - M. V. Fedoryuk	551	801

PARTIAL DIFFERENTIAL EQUATIONS

A Criterion for the Existence of a Strong Solution of Tricomi's Problem for a Gellerstedt Equation - A. B. Bazarbekov	559	810
Periodic Solutions of a Quasilinear Telegraph Equation - P. P. Zabreiko and L. G. Tret'yakova	563	815
Properties of a Solution of a Quasilinear Elliptic System at an Irregular Point of the Boundary - E. A. Kalita	573	826
Application of Parabolic Potentials in Boundary-Value Problems of Mathematical Physics. III - L. I. Kamynin	582	836
Properties of Eigenfunctions of Some Singular Elliptic Operators - A. A. Larin	595	849
A Cauchy Problem for a Class of Quasilinear Hyperbolic-Equation Systems - O. F. Men'shikh	602	857
Weak and Strong Solutions of Inverse Problems for Differential Equations in Banach Spaces - D. G. Orlovskii	611	867
Stability of a Stationary Solution of a Magnetohydrodynamics Problem - V. L. Pospelov	618	875
A Magnetohydrodynamic-Equation System for a Nonlinear Viscous Liquid - V. N. Samokhin	628	886

OBITUARY

Nikolai Fedorovich Otrokov	637	912
Mikhail Vasil'evich Fedoryuk	639	914

Volume 27, Number 6, June, 1991

ORDINARY DIFFERENTIAL EQUATIONS

A Question Concerning Linear Differential Inequalities. II - N. V. Azbelev and A. I. Domoshnitskii	641	923
Existence of a Value of Differential Games with Integral Constraints - M. Baibazarov and V. N. Ushakov	648	931

Polynomial Representation of Solutions of Operator-Differential Equations of Hyperbolic Type in Hilbert Space - V. V. Gorodetskii	656	941
A Construction of Universal Strategies in Differential Games - V. Ya. Dzhaferov	661	947
Existence of Grobman Spectral Sets of Positive Measure for Linear Systems - N. A. Izobov ...	666	953
Stability of the k-th Central Exponent of a Linear System of Differential Equations - O. G. Illarionova	670	958
Sufficient Optimality Conditions on a Nonfixed Time Interval for Differential Inclusions with Delay and Duality - É. N. Makhmudov	675	964
Pointwise Completeness of Functional-Differential Equations - A. V. Metel'skii	680	969
Solvability of the Cauchy Problem for Differential Equations in Locally Convex Spaces - V. I. Nazarov	688	979
Controllable Systems and Separability Axioms - N. N. Petrov	696	988
Stabilization of Linear Completely Integrable Pfaff Systems in the Case of a Scalar Control - O. V. Khramtsov	702	995

PARTIAL DIFFERENTIAL EQUATIONS

An Inverse Problem of Transport Theory and Properties of the Reflection Operator - V. I. Agoshkov	709	1002
Analog of the Tricomi Problem for an Equation of Mixed Parabolic-Hyperbolic Type with Two Lines and Different Order of Degeneracy - B. Islomov	713	1007
Energy Inequality for the Boundary Value Problem of a Hyperbolic Equation with a Third-Order Wave Operator - V. I. Korzyuk	719	1014
Cauchy Problem for Differential-Operator Equations of Fuchs Type - S. I. Maksimovich and N. I. Yurchuk	725	1022
Separability and Estimates of Diameters of Sets Associated with the Domain of Definition of a Nonlinear Operator of Schrödinger Type - M. B. Muratbekov	734	1034
A Mathematical Model of a Stefan Problem - S. P. Okhezin	741	1042
Construction of a Strongly Quasiregular Kernel of a Potential for Solving a Spectral Problem - T. M. Rasulov	746	1048
Algebra of Pseudodifferential Operators with Variable Analytic Symbols and Propriety of the Corresponding Equations - S. R. Umarov	753	1056
Positive Solution of a Quasilinear Elliptic Equation in \mathbb{R}^n - E. A. Sheina	760	1063

Volume 27, Number 7, July, 1991

NUMERICAL METHODS

A Generalization of Emden's Equation - M. M. Ad'yutov, N. V. Zmitrenko, and Yu. A. Klovov	767	1107
Difference Methods for the Solution of an Inverse Thermal-Conduction Boundary- Value Problem - P. N. Vabishchevich	773	1114
Realization and Convergence of Difference Schemes for Nonlinear Viscoelasticity Equations - L. G. Volkov	781	1123
The Adaptive-Mesh Method in the Problem of the Equilibrium Rotation of a Barotropic Star - S. A. Galkin, V. V. Drozdov, and O. M. Drozdova	788	1132
A Mesh Method of Solving Three-Dimensional Navier-Stokes Equations in a Parallelepiped - A. L. Goncharov and I. V. Fryazinov	793	1137
Convergence of the Bubnov-Galerkin Method with Perturbations for Symmetric Spectral Problems with Parameters Entering Nonlinearly - R. Z. Dautov, A. D. Lyashko, and S. I. Solov'ev	799	1144
Conservative Finite-Difference Schemes for Nonlinear-Optics Problems - V. V. Drits	807	1153
Kinetically Consistent Difference Schemes in Curvilinear Coordinates - T. G. Elizarova, S. V. Tsynkov, and B. N. Chetverushkin	813	1161

Uniform Stability of Difference Schemes for a Nonlocal Non-Self-Adjoint Boundary-Value Problem with Variable Coefficients - N. I. Ionkin and D. G. Durlitov	820	1170
Numerical Methods for Problems Concerning Chemical-Reaction Stimulation in Gases by Optical Radiation with Developed Thermal Diffusion - M. I. Kalinichenko, Yu. N. Karamzin, and V. A. Trofimov	826	1177
Difference Schemes for Problems of Absorption Bistability in Semiconductors - Yu. N. Karamzin, S. V. Polyakov, and V. A. Trofimov	833	1185
Solvability of Variational Problems in Nonlinear Flat-Shell Theory - M. M. Karchevskii	841	1196
Unconditional Convergence of Difference Schemes for Nonstationary Quasilinear Equations of Mathematical Physics - P. P. Matus and L. V. Stanishvskaya	847	1203
Difference Schemes for and Analysis of Approximate Solutions of Two-Dimensional Nonstationary Problems in Coupled Electroelasticity - V. N. Mel'nik and M. N. Moskal'kov	860	1220
A Biorthogonal-Series Representation of a Solution of a Tricomi Problem - E. I. Moiseev	868	1229
A Variational Approach to the Determination of the Energy Spectrum of Bound Electrons - N. Yu. Orlov	874	1237
Approximation of Positive C_0 -Groups of Operators - S. I. Piskarev	881	1245
Autotransformations with Respect to Solutions and Hydrodynamic Symmetry - E. V. Ferapontov	885	1250
A Boundary-Element Method for Problems with Corners and Mixed Boundary Conditions - M. M. Khapaev, Jr	895	1263

Volume 27, Number 8, August, 1991

ORDINARY DIFFERENTIAL EQUATIONS

A Classification of Limit Cycles - V. V. Amel'kin	899	1291
Aizerman's Problem for a Second-Order System - A. N. Belyaeva and I. G. Egorov	904	1297
Solutions of Painlevé's Fourth Equation and Their Applications - V. I. Gromak and V. V. Tsegel'nik	910	1303
Lyapunov-Functional Method for Systems with After-Effect - Yu. F. Dolgii and A. V. Kim	918	1313
Weak Observability Property of the One-Dimensional Wave Equation for a Pointwise Nonstationary Observation Operator - É. K. Kostousova	923	1318
Stability in the Large of a Second-Order Autonomous System - G. S. Krechetov	930	1325
Stability of P-Systems - A. A. Levakov	937	1334
Sufficient Optimization Condition for Convex Differential Inclusions with Distributed Parameters and Duality - É. N. Makhmudov	946	1344
Structure of a Bifurcation Set of Bifurcating Separatrices - V. S. Medvedev and E. L. Fedorov	957	1357
Derivatives of Many-Valued Mappings and the Maximum Principle for Differential Inclusions - L. I. Minchenko	964	1363
Optimal Control and Filtration of Linear Stochastic Systems of Functional-Differential Equations - S. A. Minyuk	971	1370

PARTIAL DIFFERENTIAL EQUATIONS

Application of the Contour-Integration Method in the Determination of Transverse Vibrations of an Elastic Membrane Caused by an Impact - S. I. Gaiduk	977	1377
Fundamental Solutions of B-Hypoelliptic Equations - I. A. Kipriyanov and A. A. Kulikov	986	1387
Correctness of the Formulation of a Homogeneous One-Dimensional Hyperbolic Stefan Problem - M. I. Letavin	993	1395

Huygens' Principle for a Class of Hyperbolic Equations with Variable Coefficients - A. O. Oganessian	1000	1402
Solution of a Problem Concerning the Heating of a Two-Layered Plate by a Local Heat Source - D. B. Potyagailo and Ya. P. Romanchuk	1006	1409
Solution of a First Boundary-Value Spectral Problem for a System in Static Elasticity Theory with a Complex Parameter - T. M. Rasulov	1013	1417
Integral Equations with Bounded Positive Definite Self-Adjoint Operators for Plane-Elasticity Boundary-Value Problems - V. I. Tarakanov	1022	1427
Eigenfunctions of a Quasilinear Elliptic Equation on \mathbb{R}^n - E. A. Sheina	1030	1436

Volume 27, Number 9, September, 1991

ORDINARY DIFFERENTIAL EQUATIONS

Controllability of a Differential-Equation System - S. A. Aisagaliev	1037	1475
Normal Solvability of a Functional-Differential Equation with Operational Coefficients on a Hilbert Space - R. G. Aliev	1046	1486
Averaging in a General-Position Single-Frequency System - V. I. Bakhtin	1051	1493
Asymptotic Integration of a Differential-Equation System with a Rotation Point - V. N. Bobochko	1061	1505
Periodic Solutions of Impulsive Differential Systems in Critical Cases - A. A. Boichuk, N. A. Perestyuk, and A. M. Samoilenko	1070	1516
Solvability of a Dirichlet Boundary-Value Problem for Systems of Nonlinear Ordinary Differential Equations with Singularities - G. D. Gavrindashvili	1074	1521
Exponential Representation of Solutions of Pfaffian Systems (The One-Parameter Case) - V. A. Golubeva and V. P. Leksin	1078	1526
Asymptotics of Eigenvalues of a Monodromy Operator for Periodic Systems of Differential Equations of Neutral Type with Deviating Arguments - Yu. F. Dolgii and N. V. Plastinin	1088	1538
Stability in the Large of the Null Solution of a System of Two Differential Equations - I. G. Egorov	1093	1544
A Theorem on the Unconditional Basis Property of the Root Vectors of Loaded Second-Order Differential Operators - I. S. Lomov	1098	1550
Self-Oscillations in Nonlinear Systems - É. A. Tomberg	1108	1563

PARTIAL DIFFERENTIAL EQUATIONS

A Method of Finding Fundamental Solutions of Scattering Problems - V. F. Badyukov	1118	1575
Solvability of Boundary-Value Problems for Loaded Linear Equations with Irregular Coefficients - M. T. Dzhenaliev	1126	1585
A Nonstationary Temperature Boundary Layer in a Section of a Rotating Cylinder - M. I. Letavin and G. S. Mishuris	1134	1596
Modeling of Controls in Parabolic Variational Inequalities - V. I. Maksimov	1141	1603
Solution of a Mixed Problem for a Linearized System of Equations of Motion of Viscoelastic Media - T. M. Rasulov	1146	1610
Inverse Problems for a Nonstationary Transfer Equation in Plane-Parallel Geometry - G. M. Sydykov and A. D. Sariev	1151	1617
Representation of Solutions of Mixed Problems for a Nonlinear Wave Equation by Special Double Series - M. Yu. Filimonov	1158	1625

Volume 27, Number 10, October, 1991

ORDINARY DIFFERENTIAL EQUATIONS

Stability of Linear Systems with After-Effect. III - N. V. Azbelev, L. M. Berezanskii, P. M. Simonov, and A. V. Chistyakov	1165	1659
Pseudonormal Form of a Matrix - É. I. Grudo	1172	1669
Quasiperiodic Solutions of Differential Systems with Frequency Bases of Solutions and Right Sides that are Linearly Independent over \mathbb{Q} - A. K. Demenchuk	1176	1673
Integral Estimates for Ordinary Differential Equations and Their Application to Nonsmooth Optimal-Control Problems - N. G. Dokuchaev	1181	1679
Controllability Set of an Almost-Periodic Linear System - A. G. Ivanov and E. L. Tonkov	1191	1692
Third-Order Equation with a Special Particular Integral - A. V. Kozulin	1197	1699
Classes of Equivalent States of Linear Autonomous Functional-Differential Equations - A. V. Metel'skii	1201	1703
Properties of Spectra of Systems with Slowly Varying Coefficients and Small Random Perturbations - Nguen Ting Kong	1208	1712
Nonstationary Singularities of a Cyclic Differential-Equation System - A. I. Yablonskii and Yu. N. Chertoritskii	1214	1720

PARTIAL DIFFERENTIAL EQUATIONS

Solvability of a Problem Concerning the Evolution of a Domain of Turbulence in a Uniform Liquid on a Short Time Interval - V. N. Grebenev	1218	1725
Classification and Reduction to Canonical Form of Third-Order Partial Differential Equations - T. D. Dzhuraev and Ya. Popelek	1225	1734
Compactness of Integral Operators on Weighted Spaces - P. A. Zharov	1235	1745
Boundary-Value Problems for Differential-Operational Equations with Variable Operational- Coefficient Domains - F. E. Lomovtsev and N. I. Yurchuk	1242	1754
Justification of the Calculation of the Peaking Time in Problems with Nonsmooth Solutions - A. S. Makarenko	1251	1766
Inverse Problem for a Hyperbolic Equation in Hilbert Space - D. G. Orlovskii	1255	1771
Spectrum Distribution and Convergence of Spectral Expansions for a Schrödinger Operator - A. M. Minkin and L. A. Shuster	1260	1778
Free-Boundary Problem for a Second-Order Parabolic Equation - Ya. V. Radyno and Ting Fu Wong	1269	1789
Estimation of the Stabilization Rate for $t \rightarrow \infty$ of a Solution of a Second Mixed Problem for a Second-Order Quasilinear Parabolic Equation - A. F. Tedelev	1274	1795
Discrete Spectrum of a Third-Boundary-Value Sturm-Liouville Operator for a Truncated One-Sheeted Hyperboloid of Revolution - A. F. Ulitko, A. G. Kiselevskii, and L. Shorfi	1283	1807

Volume 27, Number 11, November, 1991

ORDINARY DIFFERENTIAL EQUATIONS

Uniform Global Controllability of a Linear System with Stationary Random Parameters - O. V. Baranova	1289	1843
Effective Method of Reducing Matrices to Jordan Form - É. I. Grudo	1295	1850
Problem of Distinguishing between a Center and a Focus in One Case - S. A. Zolotarev	1297	1852
Component-Wise Equiconvergence with a Trigonometric Series of Expansions in Eigenfunctions and Associated Functions of a Schrödinger Operator with a Nonhermite Potential Matrix of Summable Elements - V. A. Il'in	1307	1862

Kneser's Problem for Functional-Differential Equations - I. T. Kiguradze and D. I. Chichua	1322	1879
Correctly Posed Boundary-Value Problems for a System of Equations with Infinite- Dimensional Pseudodifferential Operators - I. F. Kurbyko	1336	1892
Integration of Generalized Ordinary Differential Equations of Approximation Type in R^n - A. I. Panasyuk	1345	1901
Limit Cycles for One Autonomous System with Algebraic Right Sides - D. S. Ushkho	1357	1915
Conjugacy Problem for Equations with a Small Parameter - M. Yu. Yunusov	1366	1925

PARTIAL DIFFERENTIAL EQUATIONS

Solvability of a System of Stationary Boussinesq Equations - M. I. Gil'	1377	1936
A Two-Phase Problem with a Free Boundary for a Parabolic Equation in an Infinite Domain - Ya. V. Radyno and Ting Fu Wong	1382	1941
A Directional-Derivative Problem for Harmonic Functions Regular in a Half-Space - A. Yanushauskas	1389	1947

NUMERICAL METHODS

Accuracy Optimization of Calculation for Some Numerical Methods Based on Linearization - V. A. Kurchatov	1399	1959
Construction of Difference Schemes for Multidimensional Parabolic Equations with Time-Adaptive Grids - P. P. Matus	1404	1964

Volume 27, Number 12, December, 1991

ORDINARY DIFFERENTIAL EQUATIONS

Solvability of a Nonlinear Boundary-Value Problem in a Fixed Set of Functions - S. A. Brykalov	1415	2027
Criteria for the Bessel Property and the Riesz Property for a System of Eigenfunctions of Differential Operators. I - V. D. Budaev	1421	2033
Existence of Cycles of Multidimensional Phase-Synchronized Systems of the Second Kind - I. M. Burkin	1433	2044
Bounds of the Set of Characteristic Exponents of Linear Differential Systems with Higher Order Perturbations - I. A. Volkov	1438	2050
Construction of Dynamical Systems on Manifolds - I. A. Galiullin	1441	2053
Existence Theorems for Solutions to Differential Inclusions with Lower Semicontinuous Right Sides on Locally Compact Sets - V. V. Goncharov	1446	2058
Properties of Solutions of Generalized Differential Equations of the Approximative Type in R^n - A. I. Panasyuk	1453	2065
Structural Stability of a Certain Periodic System of Differential Equations - V. A. Pliss	1465	2077

PARTIAL DIFFERENTIAL EQUATIONS

Canonical First-Order Elliptic Systems - V. E. Balabaev	1470	2082
Mixed Problem with an Integral Condition for Parabolic Equations with the Bessel Operator - Benuar Nur-Eddin and N. I. Yurchuk	1482	2094
Mixed Problem for an Equation of Plate Oscillation Type, Degenerating in Finite Time - S. P. Lavrenyuk	1487	2099
Qualitative Properties of the Riemann Function - M. E. Lerner	1495	2106
Boundary-Value Problems for Degenerate Pseudoparabolic and Pseudohyperbolic Systems - V. A. Malovichko	1509	2120

Uniqueness of the Simultaneous Determination of a Coefficient in a Quasilinear Parabolic Equation and a Coefficient in a Boundary Condition - N. V. Muzylev	1513	2124
Separability of an Operator of Mixed Type and the Completeness of Its Root Vectors - M. B. Muratbekov	1517	2128
Boundary Problems for Degenerate Systems of Equations - V. K. Romanko	1527	2138
Method of R-Functions and the Method of Integral Equations for the Solution of Problems in Mathematical Physics - V. P. Titskii	1536	2147
Nonlocal Boundary-Value Problems in Layers: The Influence of Parameters on the Properties of Solutions - L. V. Fardigola	1540	2151
Letters to the Editor	1550	2201

